

### **AMENDMENTS TO THE DRAWINGS**

The attached "Replacement Sheet" of drawings includes changes to Figure 9. The attached "Replacement Sheet" 8/12, which includes Figure 9, replaces the original sheet including Figure 9.

Attachment: Replacement Sheet 8/12 (Figure 9).

### **REMARKS**

Claims 2-32, 34-40 and 42-60 are now pending in the application. Claims 61-80 were withdrawn from further consideration as being drawn to a non-elected invention, and are now cancelled. Claim 33 has been cancelled. Various minor amendments have been made to the specification and claims simply to overcome the objections to the specification and claims, as well as the rejections of the claims under 35 U.S.C. § 112. The specification has been amended at Paragraph 4 on Page 8, Paragraph 2 on Page 9, and Paragraph 3 on Page 2 to overcome the stated objections to the specification and/or claims.

Claims 9, 11, 22, 24, 29, and 42 have been amended. Claims 9 and 22 have been rewritten to be in independent form. Claims 11 and 24 have been amended to address minor informalities, and such amendments to the claims contained herein are of equivalent scope as originally filed and, thus, should not be construed as narrowing amendments. Support for the amendments to Claims 9, 22, 29, and 42 are found in Applicants' specification at Pages 3 at Paragraph 4, Page 5 at Paragraph 2, Page 6 at Paragraph 1, Page 11 at Paragraph 3, Page 21 at Paragraph 3, for example. A replacement sheet (8/12) containing Figure 9 has also been included. Entry of these amendments is requested. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

### **Examiner Interview**

Applicants appreciate the opportunity for a personal interview between Applicant's representative, Jennifer Woodside, and the Examiner, on April 19, 2005, and

would like to thank the Examiner for the courtesies extended during which the rejections to the claims of the present invention over U.S. Patent No. 5,849,659 ('659 patent) to Tanaka, et al. and PCT Publication WO 96/28384 to Baldi et al. were discussed. The Applicants' representative and the Examiner discussed proposed amendments to Claims 29 and 39, which the Examiner indicated appeared to be allowable in light of the rejections over the '659 patent and WO 96/28384. Further, the Examiner indicated the amendments necessary to overcome the §112 rejections and objections to the claims and figures. In view of these discussions, portions of the specification and Figure 9, as well as Claims 29 and 39 have been amended, and Applicants respectfully request reconsideration and allowance of these claims and those that depend therefrom.

#### **DRAWINGS**

The Examiner has objected to the drawings for certain informalities, namely to Figure 9 for a misspelling of the word "chemistry". The official PTO copy of Figure 9 of the present application (page 8/12) appears to have an obstruction over the "e" of the word chemistry. As such, Applicants are submitting a replacement sheet, reflecting the version with the word "chemistry" as being fully intact in Figure 9 of page 8/12. Applicants request entry of the drawing amendment.

#### **SPECIFICATION**

The specification stands objected to for certain informalities, namely the Examiner indicated that on Page 20, Line 14, " $\text{Al}_2\text{O}_3$ " should be "Al" for the reasons given in the

Office Action dated November 1, 2004. Applicants have amended Paragraph 3 of Page 20 accordingly.

Further, the specification was objected to as failing to provide proper antecedent basis for the claimed subject matter in Claim 5 and 17. Accordingly, Applicants have amended Paragraph 4 on Page 8 and Paragraph 2 on Page 9, to provide literal support for mixtures of alcohols and grinding media.

In light of these amendments, Applicants respectfully request withdrawal of the objections to the specification for lack of antecedent basis.

#### **REJECTION UNDER 35 U.S.C. § 112**

Claims 29 and 39 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Claims 29 and 39 are further rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. These rejections are respectfully traversed.

Applicants have amended Claims 29 to clarify and more particularly point out the claimed invention. In particular, amended Claim 29 recites a limitation of mixing starting materials selected from the group consisting of salts of M and Me soluble in water and/or alcohol, which excludes oxides of M or Me. Claim 39 depends upon Claim 29, however is directed to additive (e.g., dopant) compounds that are added to the starting materials. See Applicants' specification at Pages 22 and 23, particularly Page 23 at Paragraph 4. As such, Applicants respectfully request reconsideration of Claim 29 and its dependent Claim 39, and withdrawal of the §112 rejections.

### **REJECTION UNDER DOUBLE PATENTING**

Claims 9, 11-15, 22, 24-28, 40, 42-46 and 55-60 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-6, 11 and 13 of U.S. Patent No. 6,602,814. Applicants have enclosed a terminal disclaimer in accordance with 37 CFR 1.321. The filing of this terminal disclaimer should in no way be construed as an admission of the propriety of the rejections set forth by the Examiner.

### **REJECTION UNDER 35 U.S.C. § 103**

Claims 9-13 and 22-26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over WO 96/28384. Claims 29-30, 32-35, 40, and 42-46 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,849,659. These rejections are respectfully traversed.

Claims 9 and 22 have been re-written in independent form, and further now contain a common limitation that at least one first phase of the first component of the thermal insulating material forms a magnetoplumbite structure. In contrast, WO 96/28384 relates to various colored pigment structures, where the sole structure is a perovskite type. The structure of the first phase of the invention as claimed provides durable thermal insulating materials, particularly well-suited for high temperature applications. Further, the magnetoplumbite structure only forms in a narrowly restricted composition region. See Applicants' specification at Page 5 at Paragraph 3, and Page 6 at Paragraphs 1 and 2, for example. The WO 96/28384 reference provides no

disclosure of such a structure, and further provides no suggestion or motivation to arrive at such a structure. In light of the amendments to Claims 9 and 22, Applicants submit that Claims 9-13 and 22-26 are not rendered obvious, and respectfully request reconsideration of the claims and allowance thereof.

The Tanaka reference relates to catalyst materials having the structure  $AMn_xAl_{12-x}O_{19}$ , where A is an alkaline earth metal which can be substituted by an alkali metal and/or a rare earth element, and x represents an atomic ratio of 0.5 to 4. Claim 29 has been amended to recite a thermal insulating material including a first component with a first phase including MeO from 0.5 to 80 mol %, where Me is selected from the group formed by zinc, the alkaline earth metals, transition metals, the rare earth metals and mixtures thereof, wherein Me is not manganese. Hence, Claim 29 excludes a first phase having manganese oxide compounds. Likewise, Claim 42 has been amended to exclude manganese. Since the Tanaka reference exclusively provides compounds having manganese and relates to catalyst materials and not to methods of forming thermally insulating materials, there is no disclosure or suggestion to arrive at a method of producing a thermal insulating material as recited in Claim 29. Thus, neither Claim 29, nor its dependent Claims 29-30, 32, 34-35, 40, and 42-46 are rendered obvious over the Tanaka reference. Applicants respectfully request reconsideration and allowance of the claims.

#### **ALLOWABLE SUBJECT MATTER**

The Examiner has indicated that Claims 2-8, 16-21 and 47-54 are allowable over the cited art of record and that Claims 31 and 36-38 would be allowable if rewritten in

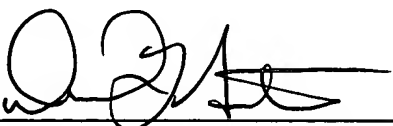
independent form. Furthermore, Claim 39 would be allowable if amended to overcome the rejections under 35 U.S.C. § 112, second paragraph, as referenced above. Claims 31, 36-38 are dependent upon Claim 29, which Applicants respectfully submit is allowable over the cited art of record in light of the amendments and remarks set forth above. As such, at this time, Applicants have not rewritten these claims in independent form.

#### CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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